

('Canadian Entomologist'), he has made some fifty-six corrections (or, as he describes them, "additions and emendations") to his paper, and therefore it is an immature publication, and one to which probably he does not desire a too serious notice, particularly as I observe, among some other matters not yet corrected, he has on p. 134 placed the genus *Angerianus*, Dist., in his tribe Cyclapini, while on p. 146 he enumerates the same genus under "Genera not described so as to admit of approximate location."

I take this opportunity to correct myself. In the homopterous subfamily Cixiinae I proposed (1906) the genus *Barma* for an eastern species, and in which I said the *Cixius finitus*, Walk., should also be included. *Barma*, however, must be suppressed in favour of *Borysthenes*, Stål (1866), which was described by Stål in his 'Hemiptera Africana,' without type or locality being given. But I overlooked the fact that in a subsequent and other publication he gave the *C. finitus*, Walk., as type of his genus, and that, therefore, settles the question.

ON SOME HYMENOPTERA COLLECTED BY MR. G. C. DUDGEON AT BUXA, BHOTAN.

BY P. CAMERON.

I AM indebted to Col. C. T. Bingham for the species described in this paper.

TENTHREDINIDÆ.

Allantus dudgeoni, sp. nov.

Black; the clypeus, a spot on the apex of the pronotum, broad at the base and incised in the middle there, gradually narrowed towards the apex, and broad bands on all the abdominal segments—the bands on the second and third narrowed in the middle—ivory white; the apical bands darker cream-coloured (perhaps through discoloration); the coxæ below and at the apex above, the four front femora and tibiæ below, the anterior tarsi, except the apices of the joints, and the middle tarsi for the greater part below, yellowish white. Wings hyaline, highly iridescent; the radial, fore half of cubitals, and the median cellules fuscous violaceous; the apex of costa and stigma dark testaceous, the nervures black; the base of transverse radial nervure running almost parallel with the costa, the apex sloped obliquely like the fourth transverse cubital nervure. ♀.

The male similar, but with the labrum white like the clypeus, and the mark on the apex of pronotum is smaller and triangular, not incised at the apex.

Length, 13 mm., ♀; ♂, 10 mm.

Front in the centre behind the ocelli raised, clearly separated by curved furrows, and bearing a few large scattered punctures; outside the furrows is a smooth space, the rest stoutly, deeply, but not very closely punctured. The front is depressed laterally, and deeply irregularly punctured; there is no frontal area; the lower part is raised, and is closely, distinctly, but not coarsely punctured. Clypeus and labrum sparsely punctured; the apex of the former roundly incised. The third joint of the antennæ is nearly double the length of the fourth. Mesonotum strongly, deeply punctured, except at the apex, where the puncturation is much finer and closer; in the centre the punctures are larger, and interlace. Scutellum sparsely punctured, weakly at the base, stronger towards the apex. Pleuræ strongly, closely punctured; the base of the propleuræ smooth; the metapleuræ finely and closely punctured. Abdomen smooth. Temples rounded, but not narrowed; the occiput margined, not quite transverse. The head in the female is slightly narrower than the thorax; in the male it is almost as wide as it. Except the last, the ventral segments are all broadly banded with yellow. At the bottom, below the hind wings, is a large horn-shaped pale yellow mark.

This species has been taken at Sikkim by Col. Bingham.

BRACONIDÆ.

✓ *Iphiaulax bhotanensis*, sp. nov.

Ferruginous; smooth and shining, sparsely covered with fuscous hair, which is longer on the metanotum and base of abdomen; the flagellum of antennæ black, fuscous at the base; wings yellowish hyaline, the stigma and nervures luteous; there is a broad blackish cloud, extending obliquely from the costa at the base of stigma to the recurrent nervure, it occupying the discoidal cellule, except a triangular space at base; there is a light fuscous cloud at the apex of both wings, that on the anterior reaching to the second transverse cubital nervure, and more broadly backwards behind. ♀. Length, 14 mm.; terebra, 10 mm.

Abdomen slightly longer than the head and thorax united, not dilated in the middle, as wide as the thorax. There is a distinct longitudinal keel in the centre of the first abdominal segment on the basal three-fourths, the keel stoutest in the middle; there is a similar keel, triangularly dilated at the base—the triangle longer than it is wide at the base—down the middle of second segment, extending close to the apex; the suturiform articulation is wide and crenulated; there is a wide, deep, curved depression down the sides of the second segment, and a narrower, oblique, clearly defined one on the basal lateral half of the third; there is a smooth, distinct, transverse furrow on the base of the fourth. Face distinctly but not closely punctured. Temples wide, obliquely narrowed, not or hardly rounded; the occiput not quite transverse. Ocellar region distinctly raised. Wings longer than the body; the recurrent nervure is received in the apex of the first cubital cellule, not interstitial; the transverse median nervure is not quite interstitial, being received shortly beyond the transverse basal.

ICHNEUMONIDÆ.

✓ *Hadrocryptus tuberculatus*, sp. nov.

Black ; the face, clypeus, except for a small irregular mark in the centre of the top above, extending on to the face, and a narrow line on its apex, dilated in the middle, and extending on to the margined sides, labrum, mandibles except the teeth, palpi, the inner orbits is narrowed, below extending on to the malar space ; pronotum at the base, a line, narrowed behind, on the sides of the middle lobe of mesonotum at the base, a transverse mark near the apex of the middle lobe, scutellum, except for a mark on the base, post-scutellum, scutellar keels, a large mark on the apical slope of the metanotum, its apex obliquely dilated laterally, the sides of the dilated part oblique, straight ; the top rounded ; a large mark on the lower part of mesopleuræ, its basal half narrowed and turned upwards, a narrow line on the apex reaching to near the bottom from the top, a broad line on the upper three-fourths of the apex of the metapleuræ, bands on the apices of the abdominal segments, broad on the basal segments, becoming narrower on the apical, especially in the centre ; that on the penultimate wider and more irregular, and the basal and apical ventral segments broadly, pale yellow. Four front legs yellow, the femora fulvous, the apical joints of the tarsi black ; the hind coxæ black, a large yellow mark on the top above, obliquely widened on the inner side, the basal joint of the trochanters yellow, streaked with black above, the apical black ; the femora fulvous, the base very slightly, the apical sixth black ; the tibiæ and tarsi yellow, the base of the former narrowly, its apex more broadly black, as is also the extreme apex of the last joint of the hind tarsi. The sixth to the eleventh joints of the antennæ are white, except above. Wings hyaline, the nervures and stigma black. ♀. Length, 15 mm. ; terebra, 5 mm.

Face and clypeus distinctly punctured, the latter more closely and strongly than the former ; its apex transverse, tuberculate in the middle, the sides distinctly curled up ; the tubercle on the face large, longer than wide, narrowed below. Front and vertex smooth, the latter slightly punctured in the middle, the former much more distinctly and closely punctured in the middle, where there is an indistinct crenulated furrow. Mesonotum closely but not strongly punctured ; the scutellum much more coarsely punctured, the post-scutellum smooth. Base of metanotum smooth, the part between the base and keel closely but not strongly punctured ; the apical part closely reticulated ; the basal keel complete ; the apex with a broader keel on the sides. Propleuræ smooth, the middle and lower apical part closely striated ; the mesopleuræ, except at the apex above, closely finely punctured ; the depression at the base with some stout keels, as has also the bordering apical furrow. The metapleuræ at the spiracles finely punctured ; the lower basal part coarsely punctured, the apical stoutly, obliquely striated, the striæ more or less intermixing. First abdominal segment smooth at the base, the dilated part closely but not strongly punctured ; in its centre is a large ovate fovea ; the second is closely, distinctly punctured, the third weakly punctured, the others smooth.

The systematic position of *Hadrocryptus* is not clear. It has the parapsidal furrows, the sternal furrow, and the spiracles on the first abdominal segment as in the Cryptinæ, and the oral region is as in that group; on the other hand, the fore legs are as in the Xoridini, the tibiæ being short, thick, and distinctly contracted or narrowed at the base. The claws are large and curved, the tibiæ spinose; the four hind tibiæ are curved at the base. The transverse median nervure in the hind wings is broken below the middle; in the fore wings it is received before the transverse basal. The temples are not very broad, and are roundly narrowed. Its resemblance to *Echthrus* (which has been placed by some authors in the Cryptinæ, by others in the Pimplinæ, in the tribe Xoridini, from the position of the abdominal spiracles) is close—perhaps on the whole closer than with the Cryptinæ. I leave it in that group from the position of the abdominal spiracles. To the generic description (Manchr. Memoirs, xlvii. (v.), No. 14. p. 11) should be added, “Apex of clypeus with a minute tooth in the middle.”

✓ *Cratojoppa cingulata*, sp. nov.

Black; the face, clypeus, labrum, mandibles, except at apex, a line round the orbit, that on the outer becoming gradually widened below, a line on the base, top and bottom of prothorax, two lines, straight on the inner, rounded on the outer side on mesonotum, the scutellar keels, a line round the sides and apex of scutellum, post-scutellum, a mark, dilated to a fine point on the outer side, on the sides of the metanotum, a line down the centre of the basal half of metanotum, roundly contracted at the base, united below to a large mark covering the outer apical area, the apex dilated on to the edge of the spiracular, along which the outer edge is continued, the top of the mark being roundly incised; tubercles, sternum, the mark extending on to the pleuræ, the apices of all the abdominal segments, the lines on the second and third broader than the others, that on the fourth incised, and on the fifth interrupted in the middle—yellow. Four front legs yellow, the femora tinged with fulvous, the tibiæ and tarsi darker above; hind coxæ and trochanters yellow, the former largely and irregularly marked with black above, the femora reddish fulvous, their apical third black; tibiæ pale yellow, the apical third black; the tarsi white. Antennæ broadly ringed with white, the scape white below. Wings hyaline, the nervures and stigma black. ♂. Length, 15 mm.

Face and upper part of clypeus strongly but not closely punctured, the front and vertex very smooth and shining. Base and middle of mesonotum closely, strongly punctured; the sides sparsely punctured inwardly, outwardly smooth, as is also the whole of the apex. Scutellum strongly, deeply punctured, except along the edges; post-scutellum smooth. Areola smooth at the base, the rest finely, transversely striated, punctured along the sides. The lateral basal area with large, deep, clearly separated punctures in the centre; the apical lateral closely, deeply, strongly punctured; the apical slope strongly, transversely striated, the posterior median more closely, regularly, and

finely than the lateral. Pleuræ, except the middle of the pro- and the lower apical half of the mesopleuræ, strongly punctured, the metapleuræ more closely and strongly than the others. The first abdominal segment shining, smooth, except for a few scattered punctures on the post-petiole; the others closely punctured, strongly and closely on the second and third, weaker on the others. Disco-cubito nervure broken by a short stump; the transverse median received distinctly beyond the transverse median; areolet four-angled; the nervures meeting in front.

May be known from *C. maculata*, Cam., by the bands on the abdomen not being separated, but continuous. The differences between it and *C. robusta*, Cam. (which has the abdominal bands continuous) may be shown thus:—

Four front legs rufous, the yellow mark on the lower orbits of equal width, the black apical band on the hind femora half the length of that on the tibiæ . *robusta*.

Four front legs yellow, the yellow mark on the lower outer orbits much narrowed above, the black apical band on hind femora as long as that on the tibiæ . *cingulata*.

Acanthojoppa dudgeonii, sp. nov.

Ferruginous; the antennæ from the fifteenth joint, the depression at the base of metanotum, posterior median area, and the base of metapleuræ black; the basal part of antennæ, the face, orbits, and base of mandibles pale yellow; the wings yellowish hyaline, the apex from the radius fuscous violaceous, the costa and stigma testaceous, the nervures black. ♀. Length, 18 mm.

Head smooth, sparsely haired; the front in the middle above finely striated. Mesonotum alutaceous, finely, closely punctured at the apex. Scutellum closely, somewhat strongly punctured, and thickly covered with longish fuscous hair; the apex above broadly, roundly incised; the sides smooth, broadly rounded; the apical slope long, smooth, and bare at the apex. Post-scutellum bordered by a stout, rounded, curved keel; the base with some striæ. Areola large, six-angled, longer than its greatest width, its apex rounded inwardly, the base transverse; the lateral angle is in the middle; it is stoutly, irregularly, longitudinally reticulated; the basal lateral area stoutly, irregularly punctured, except round the edges; the second closely, stoutly, obliquely reticulated; the posterior median area closely, stoutly, transversely striated; the lateral stoutly reticulated; the spiracular area stoutly, obliquely striated, the striæ more or less twisted. Propleuræ closely, finely punctured above, below striated, strongly above, finely below; in the centre, below the middle, is a stout keel; the basal upper half of mesopleuræ with large clearly separated punctures, the apical upper half smooth, the lower part closely, coarsely, rugosely punctured; the metapleuræ closely, strongly, rugosely reticulated. Abdomen smooth; the second and third segments closely punctured, the former more strongly than the latter; the sheaths of ovipositor largely projecting, as long as the apical two segments united. The long spur of the hind tibiæ reaches to the middle of metatarsus. The transverse cubital

nervures are almost united in front; the disco-cubital nervure is broken by a short stump; the transverse median received beyond the basal.

This species has the wings yellowish hyaline, with a broad fuscous violaceous cloud, as in *A. nigrolineata*, Cam., from Assam; that species may be known from it by the areola not being longer than wide, and by the thorax being largely marked with black.

✓ *Buodias rufo-ornatus*, Cam. ♀

The female of this species has been taken at Buxa, Bhotan. In coloration it hardly differs from the male, the only difference of note being that there is a small irregular yellow spot in the centre of the base of the second abdominal segment. The basal half of the hind femora is rufous. In length it is 17 mm., the ovipositor is 6 mm.

OPHIONINÆ.

✓ *Paniscus longitarsis*, Cam. ?

A single specimen may be this species. The tarsi unfortunately are broken. The colour is of a deeper, more uniform rufous than it is in normal examples: the ocelli are distorted. The nervures are uniformly black, darker coloured than in *longitarsis*.

FOSSORES.

Pompilus capitosus, Smith.

The abdomen in the only example is covered with a purplish pile. The clypeus is yellow, except for a black mark, longer than wide, in the middle, its apex not reaching to the end. The four posterior spurs are yellow, black at the base. The second abscissa of the radius is twice the length of the third, which is as long as the space bounded by the third transverse cubital and the second recurrent nervure.

NOTES AND OBSERVATIONS.

STENOPTILIA GRAPHODACTYLA, A NEW BRITISH PLUME.—While collecting in East Dorset during the past summer, I had the good fortune to discover the larvæ of this pretty little moth feeding in the flowers of the marsh-gentian (*Gentiana pneumonanthe*), and several of the perfect insects were bred. I also beat one or two of them from amongst mixed herbage, but they seem to be sluggish in their habits, and only fly for a short distance after being disturbed. It occurred in boggy places on heaths, and, unless the larva feed on other plants, I do not think it is likely ever to be very plentiful, as marsh-gentian is excessively local. This form of *graphodactyla* is near to var. *pneumonantes*, Schleich.—GERVASE F. MATHEW; Dovercourt, Essex, Nov. 22nd, 1906.

MYELOIS CERATONIÆ AND ITS VAR. PRYERELLA.—In an article by Mr. South (Entom. xxiii. p. 301) a reference occurs to the effect that